



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/557,633	11/17/2005	Leo Gustaaf Joanna Emiel Marien	NL030641US1	4032
24737 7590 03/17/2008 PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510				
EXAMINER HANLEY, BRITT D				
ART UNIT 2889		PAPER NUMBER		
MAIL DATE 03/17/2008		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/557,633

Applicant(s)

MARIEN ET AL.

Examiner

BRITT HANLEY

Art Unit

2889

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/17/2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 November 2005 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Response to Amendment

[01] Applicant's amendment filed 200/ December 17 has been entered and noted.

Specification

[02] The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

[03] The following title is suggested: High pressure discharge lamp with oxidized nickel-iron-chromium contacts.

[04] The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

[05] As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 112

- [06] The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- [07] Claim 12 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- [08] Regarding claim 12, it is unclear how an insulating lamp base can act as a fuse since it is not conducting current.

Claim Rejections - 35 USC § 102

- [09] The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

- [10] Claims 1, 2, and 5-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Reger *et al.* (US 2,175,361).

- [11] Regarding claim 1, Reger *et al.* disclose a high-pressure discharge lamp (fig. 1) comprising: an outer envelope (20, fig. 1) in which a discharge vessel (1, fig. 1) is arranged around a longitudinal axis (not labeled, but fig. 1 shows discharge vessel symmetric about a longitudinal axis), the discharge vessel enclosing, in a gas tight manner (hermetically sealed,

column 2, lines 30-43), a discharge space (shown but not labeled in fig. 1) provided with an ionizable filling (column 2, argon, mercury), the discharge vessel having a first (6, fig. 1) and a second (7, fig. 1) mutually opposed neck-shaped portion through which a first (4, fig. 1) and a second (5, fig. 1) current-supply conductor, respectively, extend to a pair of electrodes (2, 3, fig. 1) arranged in the discharge space (shown in fig. 1), a lamp base (8, fig. 1) of electrically insulating material (ceramic material, column 2) supporting the discharge vessel (as shown in fig.1; column 2 lines 39-43) via the first and second current-supply conductors (as shown in fig. 1), the lamp base being provided with a first (11, fig. 1) and a second (12, fig. 1) contact member connected to the respective first and second current-supply conductor (as shown in fig. 1), at least one of the lamp base, the first contact member and the second contact member functioning as an end-of-life device (the prior art discloses the limitations of the instant claim and therefor the lamp base, first contact member, and second contact member will function as an end-of-life device).

[12] Regarding claim 2, Reger *et al.* disclose a high-pressure discharge lamp as claimed in claim 1, characterized in that the lamp base is made from a soft glass, hard glass, or ceramic material (ceramic material, column 2).

[13] Regarding claim 5, Reger *et al.* disclose a high-pressure discharge lamp as claimed in claim 1, characterized in that the lamp base supports the outer envelope (column 2, lines 39-43), the outer envelope encloses the first and second current-supply conductors (as shown in Figure 1), and the outer envelope is connected to the lamp base in a gas-tight manner (hermetically sealed, column 2, lines 30-43).

Art Unit: 2889

[14] Regarding claim 6, Reger *et al.* disclose a high-pressure discharge lamp as claimed in claim 5, characterized in that the first and the second contact member issue from the outer envelope (see 17 and 18, Figure 1).

[15] Regarding claim 7, Reger *et al.* disclose a high-pressure discharge lamp as claimed in claim 1, characterized in that an exhaust tube (23, Figure 1) for evacuating the outer envelope (exhaust tube) is provided in the lamp base (as shown in fig 1) or in the outer envelope.

Claim Rejections - 35 USC § 103

[16] The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

[17] The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

[18] Claims 3, 4, 8, 10-13 are rejected under 35 USC 103 (a) as being obvious over Reger *et al.* (US 6,054,810) in view of Bruggemann *et al.* (US 6,204,598 B1).

[19] Regarding claim 3, Reger *et al.* disclose a high-pressure discharge lamp as claimed in claim 1 containing a first and second contact member (3b & 3a, fig. 1). Reger *et al.* do not appear to explicitly disclose that that the first and the second contact member are made from an oxidized nickel-iron-chromium material.

[20] However, in the same field of lamps, Bruggemann *et al.* teach a first and second contact member (22, fig. 2) made from an oxidized nickel-iron-chromium material (column 5, lines 45-53) so as to enable high dimensional accuracy (column 1, lines 59-62).

[21] At the time of the invention, it would have been obvious to one of ordinary skill in the art, to modify the lamp of Reger *et al.* to include the first and second contact member of Bruggemann *et al.* because members made from a nickel-iron-chromium material can be present right from the start in the lamp base so as to enable high dimensional accuracy (column 1, lines 59-62).

[22] Regarding claim 4, Reger *et al.* disclose a high-pressure discharge lamp as claimed in claim 1 containing a first and second contact member (3b & 3a, fig. 1). Reger *et al.* do not appear to explicitly disclose that that the first and the second contact member are made from a nickel-iron-chromium alloy.

[23] However, in the same field of lamps, Bruggemann *et al.* teach a first and second contact member (22, fig. 2) made from an oxidized nickel-iron-chromium alloy (column 5, lines 45-53).

[24] At the time of the invention, it would have been obvious to one of ordinary skill in the art, to modify the lamp of Reger *et al.* to include the first and second contact member of Bruggemann *et al.* because members made from a nickel-iron-chromium alloy can be present

right from the start in the lamp base so as to enable high dimensional accuracy (column 1, lines 59-62).

[25] Regarding claim 8, Reger *et al.* disclose a high-pressure discharge lamp as claimed in claim 1. Reger *et al.* do not appear to explicitly disclose the exhaust tube in the lamp base is made from a metal or from a NiFeCr alloy.

[26] However, in the same field of lamps, Bruggemann *et al.* teach an exhaust tube (3, fig. 2) made from a nickel-iron alloy such as nickel-iron-chromium (column 4, lines 21-24; column 5, lines 45-53).

[27] At the time of the invention, it would have been obvious to one of ordinary skill in the art, to modify the lamp of Reger *et al.* to include the exhaust tube of Bruggemann *et al.* in order to add filling gas or halides.

[28] Regarding claim 10, Reger *et al.* disclose a high-pressure discharge lamp as claimed in claim 1. Reger *et al.* do not appear to explicitly disclose that the base comprises soft glass having a softening point such that the base deforms or cracks under a thermal stress of an arc discharge. However, in the same field of lamps, Bruggemann *et al.* teach a base made of soft glass (column 2, lines 0-18; column 4, lines 12-33) because soft glass is highly suitable for use with NiFeCr leads (column 4, lines 12-33). Since the combination of Reger *et al.* and Bruggemann *et al.* disclose the structure and materials of the instant claim, the base will deform or crack under a thermal stress of an arc discharge.

[29] At the time of the invention, it would have been obvious to one of ordinary skill in the art, to modify the lamp of Reger *et al.* to include the soft glass base of Bruggemann *et al.* because soft glass is highly suitable for use with NiFeCr leads (column 4, lines 12-33).

[30] Regarding claim 11, Reger *et al.* disclose a high-pressure discharge lamp as claimed in claim 1. Reger *et al.* do not appear to explicitly disclose at least one of the first contact member and the second contact member is configured to deform or crack under a thermal stress of an arc discharge. However, in the same field of lamps, Bruggemann *et al.* teach a first and second contact member (22, fig. 2) made from an oxidized nickel-iron-chromium material (column 5, lines 45-53).

[31] At the time of the invention, it would have been obvious to one of ordinary skill in the art, to modify the lamp of Reger *et al.* to include the first and second contact member of Bruggemann *et al.* because members made from a nickel-iron-chromium material can be present right from the start in the lamp base so as to enable high dimensional accuracy (column 1, lines 59-62). Since the combination of Reger *et al.* and Bruggemann *et al.* disclose the structure and materials of the instant claim, the base will deform or crack under a thermal stress of an arc discharge.

[32] Regarding claim 12, Reger *et al.* disclose a high-pressure discharge lamp as claimed in claim 1. Reger *et al.* do not appear to explicitly disclose the base is configured to form a fuse. , in the same field of lamps, Bruggemann *et al.* teach a base made of soft glass (column 2, lines 0-18; column 4, lines 12-33) because soft glass is highly suitable for use with NiFeCr leads (column 4, lines 12-33). Since the combination of Reger *et al.* and Bruggemann *et al.* disclose the structure and materials of the instant claim, the base will deform or crack under a thermal stress of an arc discharge.

[33] At the time of the invention, it would have been obvious to one of ordinary skill in the art, to modify the lamp of Reger *et al.* to include the soft glass base of Bruggemann *et al.* because soft glass is highly suitable for use with NiFeCr leads (column 4, lines 12-33).

[34] Regarding claim 13, Reger *et al.* disclose a high-pressure discharge lamp as claimed in claim 1. Reger *et al.* do not appear to explicitly disclose at least one of the first contact member and the second contact member is configured to form a fuse. However, in the same field of lamps, Bruggemann *et al.* teach a first and second contact member (22, fig. 2) made from an oxidized nickel-iron-chromium material (column 5, lines 45-53).

[35] At the time of the invention, it would have been obvious to one of ordinary skill in the art, to modify the lamp of Reger *et al.* to include the first and second contact member of Bruggemann *et al.* because members made from a nickel-iron-chromium material can be present right from the start in the lamp base so as to enable high dimensional accuracy (column 1, lines 59-62). Since the combination of Reger *et al.* and Bruggemann *et al.* disclose the structure and materials of the instant claim, the base will deform or crack under a thermal stress of an arc discharge.

[36] Claim 9 is rejected under 35 USC 103 (a) as being obvious over Reger *et al.* (US 6,054,810) in view of Honda *et al.* (US 2003/0076041 A1).

[37] Regarding claim 9, Reger *et al.* disclose a high-pressure discharge lamp as claimed in claim 1. Reger *et al.* do not appear to explicitly disclose the ratio of the distance between the electrodes to the height of the high-pressure discharge lamp along the longitudinal axis lies in a range of 0.02 to 0.2.

[38] However, in the same field of lamps, Honda *et al.* teach a discharge vessel with an overall length of 23.1mm ([0168]) and an inter-electrode gap of 3.5mm ([0176]). Honda *et al.* do not disclose the overall length of the bulb, however, Honda *et al.* do teach a compact high-pressure discharge lamp ([0045]). Further, in order to fall within the claimed range, the overall length would have to be in the range of 17.5 mm < hdl < 175 mm. Since the length of

the discharge vessel itself exceeds the minimum length, the overall length of the bulb would have to be less than 175 mm. Since the general conditions of a the claim are disclosed, at the time of the invention, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the ratio of the distance between the electrodes to the height of the high-pressure discharge lamp along the longitudinal axis lies in a range of: 0.02 to 0.2 because optimization of workable ranges is considered within the skill of the art.

Response to Arguments

[39] Applicant's arguments with respect to claims 1, 5, and 9 have been considered but are moot in view of the new ground(s) of rejection.

[40] In response to applicant's argument relating to claim 1 that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the lamp base or one of the contacts must deform or crack under the stress of some specified discharge arc) are not recited in the rejected claim 1. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant only claims that the lamp base and the first and second contact members function as an "end-of-life device" (a very broad phrase). Therefore, since Reger *et al.* disclose the lamp base, first contact member, and the second contact member, Examiner finds these structures to act as an "end-of-life device".

[41] Regarding Applicant's argument that Bruggemann teaches away from the present invention, Examiner disagrees. The Applicant does not claim a specific softening point; and further, Bruggemann *et al.* is not relied upon for a softening point.

[42] Regarding Applicant's argument that the combination of Reger *et al.* and Honda *et al.* do not teach the ratio of claim 9, Examiner agrees. However, Honda *et al.* teach a compact high pressure lamp with an overall length and a distance between the electrodes. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the ratio of the distance between the electrodes to the height of the high-pressure discharge lamp along the longitudinal axis lies in a range of 0.02 to 0.2, since optimization of workable ranges is considered within the skill of the art.

Conclusion

[43] The prior art, found below, made of record and not relied upon is considered pertinent to applicant's disclosure.

[44] Caruso *et al.* (WO/2004/077490) disclose a range that meets the limitation of claim 9, and further, the documents reads on claims 1, 5, 7, and 8.

[45] Corbley (US 4,013,919) disclose an "end-of-life device" in a lamp.

[46] Born *et al.* (US 6,137,230 A) discloses a metal halide lamp provided with a discharge vessel with a ceramic wall which encloses a discharge space in which besides a rare gas also an ionizable filling comprising at least NaI is present, two electrodes having tips with a mutual distance EA being arranged in said discharge space which discharge vessel has an internal diameter Di over at least the electrode distance EA.

[47] Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

[48] A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

[49] Any inquiry concerning this communication or earlier communications from the examiner should be directed to Britt Hanley whose telephone number is (571) 270-3042. The examiner can normally be reached on Monday - Thursday, 6:30a-5:00p ET.

[50] If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571)272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

[51] Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Art Unit: 2889

/Britt Hanley/
Examiner, Art Unit 2889

/Karabi Guharay/
Primary Examiner, Art Unit 2889